

Product datasheet for **AM26263PU-N**

Complement C3 (C3) Mouse Monoclonal Antibody [Clone ID: 474]

Product data:

Product Type:	Primary Antibodies
Clone Name:	474
Applications:	ELISA, WB
Recommended Dilution:	Immunoassay (1-3). Western blot (3): Diabetic serum proteins were separated on PAGE-gel and transferred to nitrocellulose. The typical starting working dilution is 1:50. Positive control: Human serum. Negative control: Serum of C3 deficient patients.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	C3a
Specificity:	Monoclonal antibody 474 reacts with an epitope on C3a. The antibody reacts both with intact C3 as with C3a.
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	complement component 3
Database Link:	Entrez Gene 718 Human P01024



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Background:

The complement system is an important factor in innate immunity. The third complement component, C3, is central to the classical, alternative and lectin pathways of complement activation. The synthesis of C3 is tissue-specific and is modulated in response to a variety of stimulatory agents. During complement activation, C3 is proteolytically cleaved resulting in release of the anaphylatoxic peptide C3a. C3a is a small polypeptide consisting of 74 amino acids (ca.10kDa). C3a itself is very short-lived and in serum cleaved rapidly into the more stable C3a-desArg (also called acylation stimulating protein, ASP) . C3a exerts its function through a specific receptor (C3aR), which belongs to the G-protein coupled receptor family. Expression of C3aR has been reported in many cell types including myeloid and non-myeloid cells. Expression of C3aR on haematopoietic stem/progenitor cells has been shown to promote the trafficking/homing of these cells to the BM. Engagement of C3aR on DCs and T cells has been shown to up-regulate these cell functions.

C3a is a mediator of local inflammatory processes. It induces smooth muscle contraction, increases vascular permeability, and causes histamine release from mast cells and basophilic leukocytes. C3a is involved in inflammatory reactions seen in gram-negative bacterial sepsis, trauma, ischemic heart disease, post-dialysis syndrome and a variety of autoimmune diseases. An inherited deficiency of C3 predisposes the person to frequent assaults of bacterial infections. In ulcerative colitis, and idiopathic chronic inflammatory bowel disease, the deposition of C3 in the diseased mucosa has been reported.

Synonyms:

CPAMD1, Complement component 3